USGS science for a changing world

Earthquake Shaking Green Alert

GSN USAID FROM THE AMERICAN PEOPLE ANSS

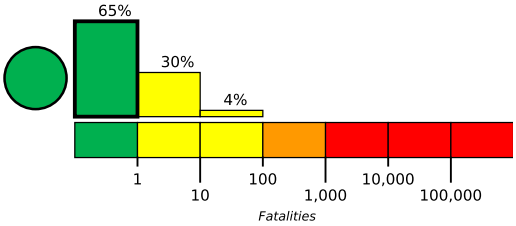
# M 5.9, 14km E of Itbayat, Philippines

Origin Time: 2019-07-26 23:37:58 UTC (Sat 07:37:58 local)
Location: 20.8106° N 121.9809° E Depth: 10.0 km

**PAGER Version 3**

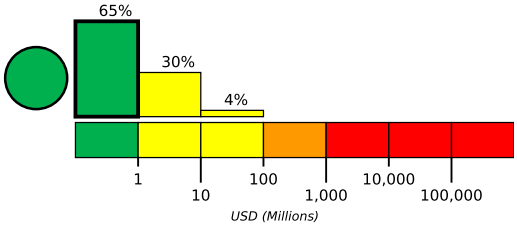
Created: 2 hours, 3 minutes after earthquake

## Estimated Fatalities




Green alert for shaking-related fatalities and economic losses. There is a low likelihood of casualties and damage.

## Estimated Economic Losses

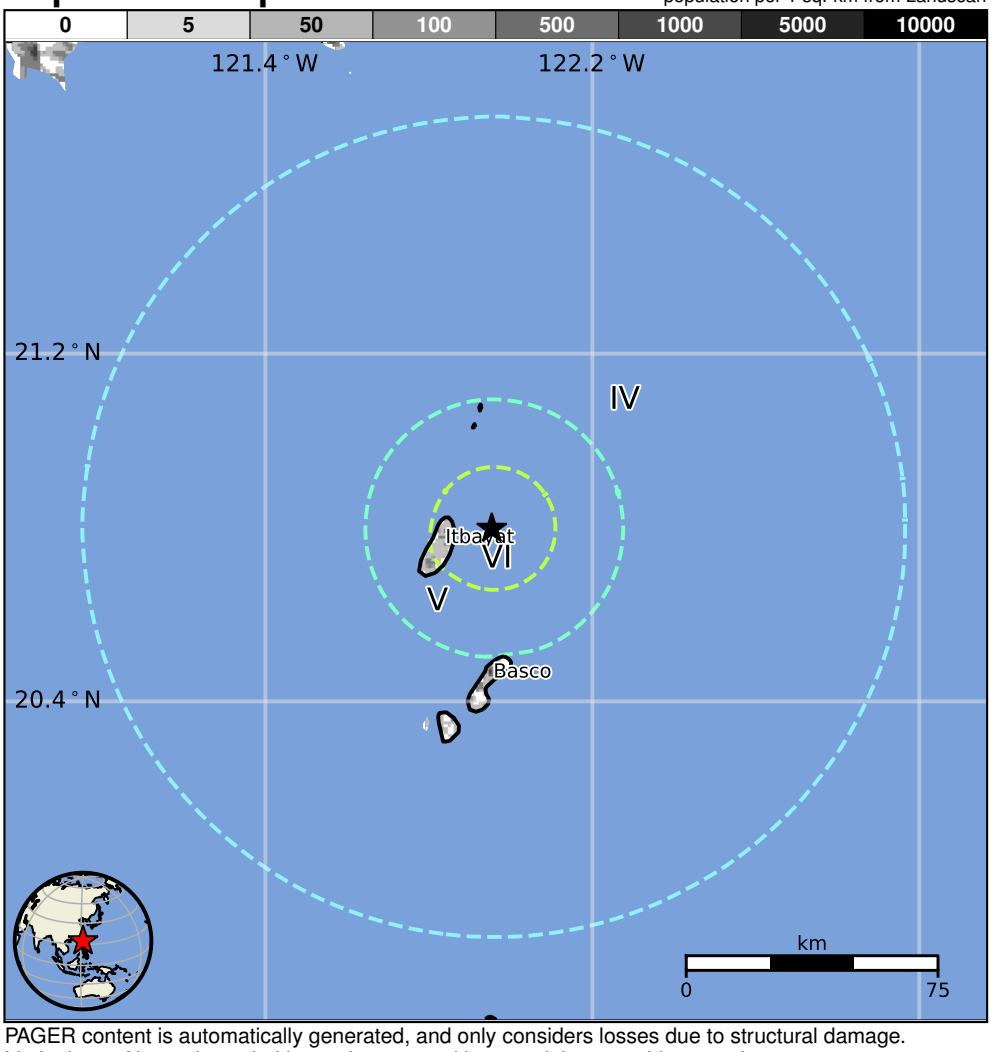



## Estimated Population Exposed to Earthquake Shaking

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| ESTIMATED POPULATION EXPOSURE (k=x1000) | | –* | 37k* | 5k | 4k | 4k | 0 | 0 | 0 | 0 |
| ESTIMATED MODIFIED MERCALLI INTENSITY | | I | II-III | IV | V | VI | VII | VIII | IX | X+ |
| PERCEIVED SHAKING | | Not felt | Weak | Light | Moderate | Strong | Very Strong | Severe | Violent | Extreme |
| POTENTIAL DAMAGE | Resistant Structures | None | None | None | V. Light | Light | Moderate | Mod./Heavy | Heavy | V. Heavy |
| | Vulnerable Structures | None | None | None | Light | Moderate | Mod./Heavy | Heavy | V. Heavy | V. Heavy |

*Estimated exposure only includes population within the map area.

## Population Exposure




## Structures

Overall, the population in this region resides in structures that are a mix of vulnerable and earthquake resistant construction. The predominant vulnerable building types are unknown/miscellaneous types and heavy wood frame construction.

## Historical Earthquakes

| Date (UTC) | Dist. (km) | Mag. | Max MMI(#) | Shaking Deaths |
|---|---|---|---|---|
| 2000-05-17 | 384 | 5.4 | VI(3k) | 3 |
| 1988-07-20 | 354 | 5.9 | VII(226k) | 1 |
| 1999-09-20 | 347 | 7.6 | IX(1,778k) | 2k |

Recent earthquakes in this area have caused secondary hazards such as landslides and liquefaction that might have contributed to losses.

## Selected City Exposure

from GeoNames.org

| MMI | City | Population |
|---|---|---|
| **VI** | **Itbayat** | **<1k** |
| **V** | **Basco** | **7k** |
| IV | Mahatao | <1k |
| IV | Sabtang | <1k |
| IV | Ivana | <1k |
| IV | Uyugan | <1k |
| III | Hengchun | 31k |

bold cities appear on map. (k=x1000)

PAGER content is automatically generated, and only considers losses due to structural damage. Limitations of input data, shaking estimates, and loss models may add uncertainty.

**https://earthquake.usgs.gov/earthquakes/eventpage/us60004w8x#pager**

**Event ID: us60004w8x**